

## **Adaptive Differential Pulse-Coded Modulation With Exponential Tracking**

Aldajani, M.A. Sayed, A.H.; Dept. of Syst. Eng., King Fahd Univ. of Pet. & Miner.,  
Dhahran, Saudi Arabia;

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King Fahd University of Petroleum & Minerals

**<http://www.kfupm.edu.sa>**

### **Summary**

This paper first investigates a companded differential pulse-coded modulator and derives an expression for its SNR performance. Analysis and simulations show that, the coder has superior SNR and dynamic range performance over other coders of similar complexity. The companded modulator is then extended to an adaptive differential pulse-coded modulator with high SNR and dynamic range performance, and it is shown to be BIBO stable.

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